REMARKS

Claims 21-32 and 35 are pending. Claims 21-29 and 35 are under consideration. Claims 30-32 are withdrawn from consideration.

Claims 1-20 and 33-34 have been canceled pursuant to their withdrawal from consideration, without disclaimer, and subject to applicant's right to pursue the subject matter of these claims in divisional applications.

Rejections under 35 U.S.C. § 112, second paragraph

In the action mailed February 12, 2007, claim 22 was rejected under 35 U.S.C. § 112, second paragraph. The rejection contends that the recitation of "the current density" in claim 22 lacks antecedent basis.

Applicant respectfully disagrees. Attention is respectfully directed to parent claim 21, which recites "a current density." Accordingly, antecedent basis for "the current density" in claim 22 has been established.

As for the relationship between the current density greater than approximately 30 mA/cm^2 recited in claim 21 and the current density greater than approximately 40 mA/cm^2 recited in claim 22, Applicant respectfully submits that one of ordinary skill would

be able to discern how the same current density could be greater than approximately 30 mA/cm^2 and greater than approximately 40 mA/cm^2. Accordingly, applicant respectfully requests that the rejection of claim 22 be withdrawn.

Claim 23 was rejected under 35 U.S.C. § 112, second paragraph. Claim 25 has been amended to address many of the Examiner's concerns, with the following exceptions.

The rejection contends the recitation that tin is electroplated with a current density greater than approximately 40 mA/cm^2 in claim 22 is somehow independent of the recitation that tin is electroplated with a current density greater than approximately 50 mA/cm^2 in claim 23.

Applicant respectfully disagrees. As discussed above, antecedent basis for "a current density" is established in parent claim 21. Therefore, it is clear to those of ordinary skill that the current greater than approximately 50 mA/cm2 further limits the current density recited in claims 21 and 22.

The rejection also contends that the recitation of "the current density" in claim 23 lacks antecedent basis.

Applicant respectfully disagrees. As discussed above, attention is respectfully directed to parent claim 21, which recites "a current density." Accordingly, antecedent basis for "the current density" in claim 23 has been established.

As for the relationship between the current density greater than approximately 40 mA/cm^2 recited in claim 22 and the current density greater than approximately 50 mA/cm^2 recited in claim 23, Applicant respectfully submits that one of ordinary skill would be able to discern how the same current density could be greater than approximately 40 mA/cm^2 and greater than approximately 50 mA/cm^2.

Accordingly, applicant respectfully requests that the rejection of claim 23 be withdrawn.

Claim 25 was rejected under 35 U.S.C. § 112, second paragraph. Claim 25 has been amended to address many of the Examiner's concerns, with the exceptions noted below.

The rejection is understood to contend that antecedent basis for "the solution" had not been established.

Applicant respectfully disagrees. Former claim 24, and current claim 21, both establish antecedent basis for "a solution." Accordingly, antecedent basis for "the solution" in claim 25 has been established.

It is believed that all the bases of rejection have been addressed. Accordingly, applicant respectfully requests that the rejection of claim 25 be withdrawn.

Claim 26 was rejected under 35 U.S.C. § 112, second paragraph. Claim 25 has been amended to address many of the Examiner's concerns, with the exceptions noted below.

The rejection is understood to contend that antecedent basis for "the solution" had not been established. Former claim 24, and current claim 21, both establish antecedent basis for "a solution." Accordingly, antecedent basis for "the solution" in claim 26 has been established.

The rejection also contends that claim 26 recites the formulation "one or more of … and a mixture thereof…" in places where this formulation does not appear. Applicant traverses any rejections based on claim 26 allegedly reciting this formulation when claim 26 does not, in fact, recite that formulation.

It is believed that all the bases of rejection have been addressed. Accordingly, applicant respectfully requests that the rejection of claim 26 be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claim 21 was rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,322,686 to Brown et al. (hereinafter "Brown"). As shown above, claim 21 has been amended to recite a solution that includes a polyethyleneglycol alkyl-3-sulfopropyl diether, as was recited in former claim 26. Former claim 26 was rejected under 35 U.S.C. § 103(a) as obvious over Brown and U.S. Patent No. 4,820,388 to Kurze et al. (hereinafter "Kurze").

As amended, claim 21 relates to a method that includes electroplating tin from a solution. The solution includes a bath-soluble tin compound, a methanesulfonic acid, and a polyethyleneglycol alkyl-3-sulfopropyl diether. The tin is electroplated with a current density of greater than approximately 30 mA/cm^2 and a plating efficiency of greater than approximately 95%.

The rejection of former claim 26 is based on the contention that it would have been obvious for one of ordinary skill to have used Kurze's surfactants in Brown's plating technique in order to avoid passivation of an electrode surface, produce bright deposits with good ductility, have stable high performance baths, and limit foaming.

Applicant respectfully disagrees. As a threshold matter, Applicant notes that none of these issues were identified anywhere in Brown as being a problem. *See, e.g., Brown*, col. 4, line 8-25; line 53-67 (discussing the effectiveness of polyalkylene glycol polymers). Indeed, Brown describes that current densities in excess of 2000 ASF can be achieved using his baths and that at least some of his polyalkylene glycol polymers do not foam at all during electroplating. *Id.*, col. 4, line 14-16. There is no reason to believe that one of ordinary skill would depart from these teachings, as suggested by the rejection, and turn to Kurze's surfactants.

Further, please note that even if one of ordinary skill were to add Kurze's surfactants to Brown's baths (which applicant does not concede), he/she would still not arrive at the subject matter recited in claim 21. In particular, neither Brown nor Kurze makes any mention of polyethyleneglycol alkyl-3-sulfopropyl diethers.

In acknowledgement of this deficiency, the rejection cites to M.P.E.P. §2144.08(II)(A)(4)(c) and §2144.09 as allegedly supporting the rejection. Applicant respectfully disagrees. To begin with, Kurze's surfactants do not stand in a species/genus relationship with the recited polyethyleneglycol alkyl-3-sulfopropyl diethers. Instead, Kurze's surfactants are distinct chemical species.

Moreover, Applicant is not seeking to patent a composition. Rather, applicant is seeking to patent a method that includes electroplating tin. There is no reason to believe that the recited polyethyleneglycol alkyl-3-sulfopropyl diethers would have properties similar that are similar to those of Kurze's surfactants *in electroplating tin*.

Accordingly, claim 22 and the claims dependent therefrom are allowable over Brown and Kurze.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicant asks that all claims be allowed. No fees are believed due at this time. Please apply any credits or additional charges to deposit account 06-1050.

Respectfully submitted,

Date: May 14, 2007

Scott C. Harris
Reg. No. 32,030

BY
JOHN F. CONROY
REG. NO. 45,485

Fish & Richardson P.C.
PTO Customer No. 20985
12390 El Camino Real
San Diego, California 92130
(858) 678-5070 telephone
(858) 678-5099 facsimile

SCH/JFC/jhg
10732002.doc